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Remarks

Applicant has carefully considered the Office Action mailed on September 16, 2003. Of the pending claims, the Examiner rejected claims 1-26. In response to the Office Action, Applicant amended the specification to incorporate corrections required in light of the inconsistencies cited by the Examiner. Applicant thanks the Examiner for informing the Applicant of the same. Applicant amended claims 1, 9 and 18 and cancelled claims 7 and 16. In addition, Applicant also amended claims 9 and 18 to correct for inadvertent typographical errors. No new matter has been added.

Claims 1-6, 8-15 and 17-26 remain pending in the present patent application. In view of the above amendments and the following remarks, Applicant requests further examination and reconsideration of the present patent application.

The Examiner rejected claims 1-26 under 35 USC 103(a) as being unpatentable over Machida US patent application publication 2002/0115929 A1, in view of Wang et al., (hereinafter Wang) US patent 5,928,148. Applicant respectfully traverses the rejection of claims 1-26 under 35 USC 103(a) over Machida in view of Wang. It is respectfully submitted that the Applicant's invention as recited in independent claims 1, 9 and 18 and claims depending therefrom, is not obvious in view of the applied references, taken individually or in combination. Applicant further submits that the applied references fail to teach or suggest means for combining a central portion of each sub-image to form a composite image of the subject as described by Applicant's invention recited in the independent claims 1, 9 and 18.

Applicant respectfully submits that the applied references do not teach, suggest, or disclose (either individually or collectively) the independent claims 1, 9 and 18 recitation of "combining a central portion of each sub-image to form a composite image of the subject". Machida merely discloses a Magnetic Resonance Imaging (MRI) system capable of imaging a plurality of selective regions, while an object to be imaged is continuously moved in a certain direction. Machida does not disclose means for combining central portions of sub-images to form a composite image of the subject.

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Applicant has carefully reviewed the material in Figures 4a through 4d and Figure 6 and page 6, paragraph [0095] through [0099] and page 4 paragraph [0055] through page 6 paragraph [0099] of Machida cited by the examiner, and submits that this section fails to disclose or suggest means for combining central portions of sub-images to form composite images. Instead the material in Figures 4a through 4d and Figure 6 and page 6, paragraph [0095] through [0099] and page 4, paragraph [0055] through page 6 paragraph [0099] discusses the multi slice imaging techniques and the phase correction techniques to be applied when an object to be imaged is moved.

Further there is no motivation in Machida to combine it with Wang. Wang discloses a method for acquiring image data from a large region of interest by acquiring the image data from a series of smaller fields of view, which collectively span the large region of interest. Wang also does not disclose means for combining central portions of sub-images to form a composite image of the subject. Therefore, Wang (either alone or in combination with Machida) does not disclose, teach or suggest disclose means for combining central portions of sub-images to form a composite image of the subject.

Obviousness cannot be established absent a teaching or suggestion in the prior art to produce the claimed invention. For a *prima facie* case of obviousness, the Examiner must set forth the differences in the claim over the applied references, set forth the proposed modification of the references, which would be necessary to arrive at the claimed subject matter, and explain why the proposed modification would be obvious. It is well-established law that the mere fact that references may be combined or modified does not render the resultant modification or combination obvious unless the prior art suggests the desirability of the modification or combination. As stated above, nowhere do the applied references teach, suggest or disclose means for combining central portions of respective sub-images to form a composite image of the subject. By providing means for combining "central portions" of sub-images, the Applicant's invention creates a composite image of the subject with minimum discontinuity or stitching artifacts at image edge boundaries.

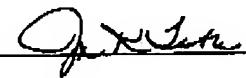
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Applicant interprets the Office Action as stating the proposed modification is to modify the teaching of Machida which receives multiple signals with one reception coil during patient translation with the teaching of Wang et al in combination, because Wang also acquires multiple imaging signals from a patient. However, Applicant respectfully submits that nowhere do the applied references discuss the challenges and disadvantages associated with extended volume imaging in MRI, wherein the reconstructed image is typically characterized by distinctive artifacts, known as stitching artifacts, at image boundaries, and the techniques to overcome them. Further the applied references merely address techniques for acquiring image data from a series of smaller fields of view. Thus, Applicant submits that the Examiner has failed to provide a basis in the art for combining the applied references that would support a *prima facie* case of obviousness. Accordingly, Applicant respectfully submits that the claimed invention, as recited in now presumably allowable independent claims 1, 9 and 18 define allowable subject matter over the applied art. Withdrawal of the rejections is respectfully requested, and allowance of claims 1, 9 and 18 is respectfully solicited. Claims 2-6, 8, 10-15, 17 and 19-26 depend directly or indirectly from claims 1, 9 and 18 and are therefore similarly patentable by dependency.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,



Jean Testa
Reg. No. 39,396

Dec. 10, 2003
General Electric Company
Building K1, Room 4A69A
Schenectady, New York 12301

Telephone: (518) 387-5115